



EDMUND G. BROWN JR.
GOVERNOR



MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

December 15, 2017

Robert Cook, Owner
Sierra Meadows
5004 Maynard Street
San Diego, CA 93560

RE: Total Coliform Maximum Contaminant Level Failure for December 2016 & June 2017–
Sierra Meadows Water System, System No. 1502564 - Citation No. 03_19_17C_046

Dear Mr. Cook,

The State Water Resources Control Board (hereinafter State Board), Division of Drinking Water has issued Citation No. 03_19_17C_046, for failure to comply with the provisions of the California Health & Safety Code and Title 22, California Code of Regulations. Specifically, the Sierra Meadows Water System (Water System) failed the total coliform maximum contaminant level (MCL) for the months of December 2016 and June 2017.

The California Safe Drinking Water Act, Section 116577, provides for the State Board to be reimbursed by the public water system for costs incurred for preparing and issuing an enforcement action to that system. Therefore, the Water System has been billed for the preparation and issuance of this citation. The State Board's current billing rate for enforcement activities is \$167 per hour. The hourly rate is subject to review and change upon approval. You will receive a bill for these costs following the end of the State's fiscal year, from our Fee Billing Unit in Sacramento.

Any person who is aggrieved by a citation, order or decision issued by the Deputy Director of the Division of Drinking Water under Article 8 (commencing with Health and Safety Code, Section 116625) or Article 9 (commencing with Health and Safety Code, Section 116650), of the Safe Drinking Water Act (Chapter 4, Part 12, Division 104, of the Health and Safety Code) may file a petition with the State Water Board for reconsideration of the citation, order or decision. Attachment A to the enclosed Citation contains the relevant statutory provisions for filing a petition for reconsideration (Health and Safety Code, Section 116701).

Petitions must be received by the State Board within 30 days of the issuance of the citation, order or decision by the Deputy Director. The date of issuance is the date when the Division of Drinking Water mails a copy of the citation, order or decision. If the 30th day falls on a Saturday, Sunday, or state holiday, the petition is due the following business day. Petitions must be received by 5:00 p.m.

FELICIA MARCUS, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

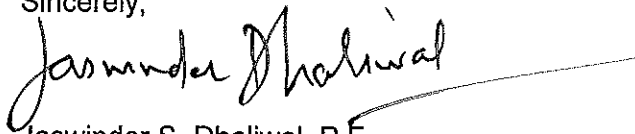
4925 Commerce Drive, Suite 120, Bakersfield, CA 93309 | www.waterboards.ca.gov

Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

If you have any questions regarding this matter, please contact our office at (661) 335-7315 or via email at dwpdist19@waterboards.ca.gov.

Sincerely,

A handwritten signature in black ink, reading "Jaswinder S. Dhaliwal". The signature is fluid and cursive, with a long horizontal line extending from the end of the name.

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: Citation No. 03_19_17C_046

Certified Mail No. 7012 1010 0001 3880 1539

cc: Kern County Dept. of Public Health, Environmental Health Division
Daniel Sackett, skOO'kum h2o monitoring, inc., Contract Sampler (via email)

STATE OF CALIFORNIA
WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

TO: Sierra Meadows Water System
Water System No. 1502564

Attn: Robert Cook, Owner
Sierra Meadows
5004 Maynard St
San Diego, CA 93560

CITATION FOR VIOLATION OF CALIFORNIA CODE OF REGULATIONS,
TITLE 22, SECTIONS 64426.1(b)(2)

December 2016 and June 2017

C I T A T I O N N O. 03_19_17C_048

Issued: December 8, 2017

STATEMENT OF FACTS

Sierra Meadows Water System (Water System) is classified as a community Water System and serves a population of approximately 68 persons through 51 service connections. The Water System is a community public water system, as defined in the California Health & Safety Code (CHSC), section 116275.

The Water System operates under the authority of a domestic water supply permit No. 03-19-17P-012 issued on October 12, 2017, by the State Water Resources Control Board (State Board), Division of Drinking Water. Effective July1, 2014, regulatory jurisdiction of the Water System was transferred from the California Department of Public Health to the State Board.

1 The Water System utilizes one ground water well (Well 01) as its source of
2 domestic water and has one (1) 10,000-gallon welded steel storage tank to
3 provide storage for the domestic water supply system. No treatment is
4 provided to the water produced by the well.

5
6 Section 116650 of the California Health and Safety Code authorizes the
7 issuance of a citation to a public water system for violation of the California
8 Safe Drinking Water Act (Health and Safety Code, Division 104, Part 12,
9 Chapter 4, commencing with Section 116270) (California SDWA), or any
10 regulation, standard, permit or order issued or adopted thereunder.

11
12 The State Board, acting by and through its Division of Drinking Water and the
13 Deputy Director for the Division (Deputy Director), hereby issues a citation to
14 Sierra Meadows Water System (mailing address: 5004 Maynard St., San
15 Diego, CA 93560) for violation of California Code of Regulations (CCR), Title
16 22, Section 64426.1 subsection (b)(2).

17
18 A copy of the applicable statutes and regulations are included in Appendix 1,
19 which is appended hereto and incorporated by reference.

20
21 The Water System collects one (1) routine distribution system bacteriological
22 sample per month in accordance with its approved Bacteriological Sample
23 Siting Plan. One (1) routine bacteriological quality sample collected on
24 December 6, 2016, from the distribution system, tested positive for total
25 coliform bacteria. All four (4) repeat samples, collected on December 9, 2016,
26 from the distribution system tested negative for total coliform bacteria. One

(1) repeat sample collected on December 9, 2016, from Well 01, for compliance with the Ground Water Rule, as well as the total coliform rule, tested positive for total coliform bacteria. **Sierra Meadows Water System failed the total coliform maximum contaminant level (MCL) for December 2016 [Section 64426.1(b)(2), Authorities]**. One (1) follow-up repeat sample collected on December 12, 2016 from Well 01 for compliance with Ground Water Rule, as well as the total coliform rule, tested negative for total coliform and *E. coli* bacteria. All five (5) routine samples collected in January 2017 tested negative for total coliform bacteria and *E. coli*. All monthly routine samples collected from February 2017 to May 2017, tested negative for total coliform bacteria. One (1) routine bacteriological quality sample collected on June 20, 2017, from the distribution system, tested positive for total coliform bacteria. Three (3) out of four (4) repeat samples, collected on June 23, 2017, from the distribution system tested positive for total coliform bacteria. **Sierra Meadows Water System failed the total coliform maximum contaminant level (MCL) for June 2017 [Section 64426.1(b)(2), Authorities]**. One (1) repeat sample collected on June 23, 2017, from Well 01, for compliance with the Ground Water Rule, as well as the total coliform rule, tested negative for total coliform and *E. coli* bacteria. One (1) investigate sample from the storage tank collected on June 28, 2017 tested positive for total coliform bacteria. All five (5) special samples were collected on June 29, 2017 from the distribution system and tested negative for total coliform bacteria. All five (5) routine samples collected in July 2017 tested negative for total coliform and *E. coli* bacteria.

1
2 On July 10, 2017, the Level 1 Assessment was submitted to the State Boards
3 by skOO'kum h2o monitoring, inc. on behalf of the Water System. A broken
4 irrigation line was identified as a possible cause of total coliform positive
5 samples collected in June 2017. Due to the second total coliform treatment
6 technique trigger within 12 months, the Water System was required to have a
7 Level 2 Assessment completed to comply with the federal revised total
8 coliform rule. On July 25, 2017, Abdel Shurbaji (Ph.D., P.E.), Associate
9 Sanitary Engineer, and Dita Amtey, Environmental Scientist, with the State
10 Board conducted a site inspection of the Water System as part of the Level 2
11 Assessment. On August 28, 2017, the State Board sent findings of the Level
12 2 Assessment (copy provided as **Appendix 2**) to the Water System and
13 directed the Water System to take corrective actions. The Water System is
14 currently working with the State Board to address the deficiencies outlined in
15 the Level 2 Assessment.

16 Tier 2 public notification and *Certification of Completion of Public Notification*
17 for the June 2017 total coliform MCL violation has been received by the State
18 Board.

19
20 Results of all (source and distribution) bacteriological samples collected from
21 January 2016 to October 2017 are summarized in **Appendix 3**.

22

DETERMINATIONS

Based upon the above Statement of Facts and Authorities, the State Board has determined that the Sierra Meadows Water System has violated the following:

1. CCR, Title 22, Section 64426.1(b)(2); Specifically, the Water System violated the total coliform MCL for the months of December 2016 and June 2017, when more than one sample during these months tested positive for total coliform bacteria.

DIRECTIVES

Sierra Meadows Water System is hereby directed to take the following actions:

1. Cease and desist from failing to comply with Section 116555(a) of the California Health and Safety Code (CHSC) and Section 64426.1(b)(2), of the California Code of Regulations.

All submittals required by this Citation shall be electronically submitted to the Division at the following address. The subject line for all electronic submittals corresponding to this citation shall include the following information: Water System name and number, citation number and title of the document being submitted.

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer
DWPSDIST19@waterboards.ca.gov

The State Board reserves the right to make such modifications to this Citation as it may deem necessary to protect public health and safety. Such

1 modifications may be issued as amendments to this Citation and shall be
2 effective upon issuance.

3
4 Nothing in this Citation relieves the Water System of its obligation to meet the
5 requirements of the California SDWA (CHSC, Division 104, Part 12, Chapter
6 4, commencing with Section 116270), or any regulation, standard, permit or
7 order issued or adopted thereunder.

8 9 **PARTIES BOUND**

10 This citation shall apply to and be binding upon Sierra Meadows Water
11 System, its officers, directors, agents, employees, contractors, successors,
12 and assignees.

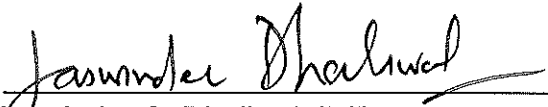
13 14 **SEVERABILITY**

15 The directives of this citation are severable, and Sierra Meadows Water
16 System shall comply with each and every provision thereof, notwithstanding
17 the effectiveness of any other provision.

18 19 **FURTHER ENFORCEMENT ACTIONS**

20 Section 116270, Chapter 4, Part 12, Division 104 of the CHSC authorizes the
21 State Board to: issue additional citations with assessment of penalties if a
22 public water system continues to fail or correct a violation identified in a
23 citation; take action to suspend or revoke a permit that has been issued to a
24 public water system if the system has violated applicable law or regulations
25 or has failed to comply with orders of the State Board; and petition the superior
26 court to take various enforcement measures against a public water system

1 that has failed to comply with orders of the State Board. The State Board
2 does not waive any further enforcement action by issuance of this citation.
3

4
5 
6 Jaswinder S. Dhaliwal, P.E.
7 Senior Sanitary Engineer
8 DRINKING WATER FIELD OPERATIONS BRANCH

Dec. 15, 2017
Date

9
10
11 Appendices (2):
12

- 13 1. Applicable Statutes and Regulations
- 14 2. Copy of Level 2 Assessment Findings dated August 28, 2017
- 15 3. Report Showing a Summary of Bacteriological Results
16 (January 2016 – October 2017)
17
18

19 Certified Mail No. 7012 1010 0001 3880 1539
20

21
22 CC: Kern County Dept. of Public Health, Environmental Health Division
23 (w/o appendices)
24

25 Daniel Sackett, skOO'kum h2O monitoring inc., Contract Sampler (via
26 email)
27
28

APPENDIX 1. APPLICABLE STATUTES AND REGULATIONS FOR CITATION NO. 03_19_17C_048

NOTE: The following language is provided for the convenience of the recipient, and cannot be relied upon as the State of California's representation of the law. The published codes are the only official representation of the law. Regulations related to drinking water are in Titles 22 and 17 of the California Code of Regulations. Statutes related to drinking water are in the Health & Safety Code, the Water Code, and other codes.

California Health and Safety Code (CHSC):

Section 116271 states in relevant part:

- (a) The State Water Resources Control Board succeeds to and is vested with all of the authority, duties, powers, purposes, functions, responsibilities, and jurisdiction of the State Department of Public Health, its predecessors, and its director for purposes of all of the following:
- (1) The Environmental Laboratory Accreditation Act (Article 3 (commencing with Section 100825) of Chapter 4 of Part 1 of Division 101).
 - (2) Article 3 (commencing with Section 106875) of Chapter 4 of Part 1.
 - (3) Article 1 (commencing with Section 115825) of Chapter 5 of Part 10.
 - (4) This chapter and the Safe Drinking Water State Revolving Fund Law of 1997 (Chapter 4.5 (commencing with Section 116760)).
 - (5) Article 2 (commencing with Section 116800), Article 3 (commencing with Section 116825), and Article 4 (commencing with Section 116875) of Chapter 5.
 - (6) Chapter 7 (commencing with Section 116975).
 - (7) The Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Division 43 (commencing with Section 75001) of the Public Resources Code).
 - (8) The Water Recycling Law (Chapter 7 (commencing with Section 13500) of Division 7 of the Water Code).
 - (9) Chapter 7.3 (commencing with Section 13560) of Division 7 of the Water Code.
 - (10) The California Safe Drinking Water Bond Law of 1976 (Chapter 10.5 (commencing with Section 13850) of Division 7 of the Water Code).
 - (11) Wholesale Regional Water System Security and Reliability Act (Division 20.5 (commencing with Section 73500) of the Water Code).
 - (12) Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002 (Division 26.5 (commencing with Section 79500) of the Water Code).
- (b) The State Water Resources Control Board shall maintain a drinking water program and carry out the duties, responsibilities, and functions described in this section. Statutory reference to "department," "state department," or "director" regarding a function transferred to the State Water Resources Control Board shall refer to the State Water Resources Control Board. This section does not impair the authority of a local health officer to enforce this chapter or a county's election not to enforce this chapter, as provided in Section 116500...
- (k)
- (1) The State Water Resources Control Board shall appoint a deputy director who reports to the executive director to oversee the issuance and enforcement of public water system permits and other duties as appropriate. The deputy director shall have public health expertise.
 - (2) The deputy director is delegated the State Water Resources Control Board's authority to provide notice, approve notice content, approve emergency notification plans, and take other action pursuant to Article 5 (commencing with Section 116450), to issue, renew, reissue, revise, amend, or deny any public water system permits pursuant to Article 7 (commencing with Section 116525), to suspend or revoke any public water system permit pursuant to Article 8 (commencing with Section 116625), and to issue citations, assess penalties, or issue orders pursuant to Article 9 (commencing with Section 116650). Decisions and actions of the deputy director taken pursuant to Article 5 (commencing with Section 116450) or Article 7 (commencing with Section 116525) are deemed decisions and actions taken, but are not subject to reconsideration, by the State Water Resources Control Board. Decisions and actions of the deputy director taken pursuant to Article 8 (commencing with Section 116625) and Article 9 (commencing with Section 116650) are deemed decisions and actions taken by the State Water Resources Control Board, but any aggrieved person may petition the State Water Resources Control Board for reconsideration of the decision or action. This subdivision is not a limitation on the State Water Resources Control Board's authority to delegate any other powers and duties.

Section 116555 states in relevant part:

- (a) Any person who owns a public water system shall ensure that the system does all of the following:
- (1) Complies with primary and secondary drinking water standards.
 - (2) Will not be subject to backflow under normal operating conditions.
 - (3) Provides a reliable and adequate supply of pure, wholesome, healthful, and potable water.

Section 116650 states in relevant part:

- (a) If the state board determines that a public water system is in violation of this chapter or any regulation, permit, standard, citation, or order issued or adopted thereunder, the state board may issue a citation to the public water system. The citation shall be served upon the public water system personally or by certified mail. Service shall be deemed effective as of the date of personal service or the date of receipt of the certified mail. If a person to whom a citation is directed refuses to accept delivery of the certified mail, the date of service shall be deemed to be the date of mailing.

- (b) Each citation shall be in writing and shall describe the nature of the violation or violations, including a reference to the statutory provision, standard, order, citation, permit, or regulation alleged to have been violated.
- (c) A citation may specify a date for elimination or correction of the condition constituting the violation.
- (d) A citation may include the assessment of a penalty as specified in subdivision (e).
- (e) The state board may assess a penalty in an amount not to exceed one thousand dollars (\$1,000) per day for each day that a violation occurred, and for each day that a violation continues to occur. A separate penalty may be assessed for each violation and shall be in addition to any liability or penalty imposed under any other law.

Section 116655 of the CHSC, states in relevant part:

"(a) Whenever the State Board determines that any person has violated or is violating this chapter, or any permit, regulation, or standard issued or adopted pursuant to this chapter, the director may issue an order doing any of the following:

- (1) Directing compliance forthwith.
- (2) Directing compliance in accordance with a time schedule set by the State Board.
- (3) Directing that appropriate preventive action be taken in the case of a threatened violation.
- (b) An order issued pursuant to this section may include, but shall not be limited to, any or all of the following requirements:
 - (1) That the existing plant, works, or system be repaired, altered, or added to.
 - (2) That purification or treatment works be installed.
 - (3) That the source of the water supply be changed.
 - (4) That no additional service connection be made to the system.
 - (5) That the water supply, the plant, or the system be monitored.
 - (6) That a report on the condition and operation of the plant, works, system, or water supply be submitted to the State Board."

Section 116701 of the CHSC, states in relevant part:

- (a) Within 30 days of issuance of an order or decision issued by the deputy director under Article 8 (commencing with Section 116625) or Article 9 (commencing with Section 116650), an aggrieved person may petition the state board for reconsideration. Where the order or decision of the deputy director is issued after a hearing under Chapter 5 (commencing with Section 11500) of Part 1 of Division 3 of Title 2 of the Government Code, this section shall apply instead of Section 11521 of the Government Code.
- (b) The petition shall include the name and address of the petitioner, a copy of the order or decision for which the petitioner seeks reconsideration, identification of the reason the petitioner alleges the issuance of the order was inappropriate or improper, the specific action the petitioner requests, and other information as the state board may prescribe. The petition shall be accompanied by a statement of points and authorities of the legal issues raised by the petition.
- (c) The evidence before the state board shall consist of the record before the deputy director and any other relevant evidence that, in the judgment of the state board, should be considered to implement the policies of this chapter. The state board may, in its discretion, hold a hearing for receipt of additional evidence.
- (d) The state board may refuse to reconsider the order or decision if the petition fails to raise substantial issues that are appropriate for review, may deny the petition upon a determination that the issuance of the order or decision was appropriate and proper, may set aside or modify the order or decision, or take other appropriate action. The state board's action pursuant to this subdivision shall constitute the state board's completion of its reconsideration.
- (e) The state board, upon notice and hearing, if a hearing is held, may stay in whole or in part the effect of the order or decision of the deputy director.
- (f) If an order of the deputy director is subject to reconsideration under this section, the filing of a petition for reconsideration is an administrative remedy that must be exhausted before filing a petition for writ of mandate under Section 116625 or 116700."

California Code of Regulations, Title 22 (CCR):

Section 64421 (General Requirements) states:

- (a) Each water supplier shall:
 - (1) Develop a routine sample siting plan as required in section 64422;
 - (2) Collect routine, repeat and replacement samples as required in Sections 64423, 64424, and 64425;
 - (3) Have all samples analyzed by laboratories approved to perform those analyses by the State Board and report results as required in section 64423.1;
 - (4) Notify the State Board when there is an increase in coliform bacteria in bacteriological samples as required in section 64426; and
 - (5) Comply with the Maximum Contaminant Level as required in section 64426.1.
- (b) Water suppliers shall perform additional bacteriological monitoring as follows:
 - (1) After construction or repair of wells;
 - (2) After main installation or repair;
 - (3) After construction, repair, or maintenance of storage facilities; and
 - (4) After any system pressure loss to less than five psi. Samples collected shall represent the water quality in the affected portions of the system.

Section 64422 (Routine Sample Siting Plan) states:

- (a) By September 1, 1992, each water supplier shall develop and submit to the State Board a siting plan for the routine collection of samples for total coliform analysis, subject to the following:

- (1) The sample sites chosen shall be representative of water throughout the distribution system including all pressure zones, and areas supplied by each water source and distribution reservoir.
- (2) The water supplier may rotate sampling among the sample sites if the total number of sites needed to comply with (a)(1) above exceeds the number of samples required according to Table 64423-A. The rotation plan shall be described in the sample siting plan.
- (b) If personnel other than certified operators will be performing field tests and/or collecting samples, the sample siting plan shall include a declaration that such personnel have been trained, pursuant to §64415 (b).
- (c) The supplier shall submit an updated plan to the State Board at least once every ten years and at any time the plan no longer ensures representative monitoring of the system.

Section 64423 (Routine Sampling) states:

- (a) Each water supplier shall collect routine bacteriological water samples as follows:
 - (1) The minimum number of samples for community water systems shall be based on the known population served or the total number of service connections, whichever results in the greater number of samples, as shown in Table 64423-A. A community water system using groundwater which serves 25-1000 persons may request from the State Board a reduction in monitoring frequency. The minimum reduced frequency shall not be less than one sample per quarter.
 - (2) The minimum number of samples for non-transient-non-community water systems shall be based on the known population served as shown in Table 64423-A during those months when the system is operating. A non-transient-non-community water system using groundwater which serves 25-1000 persons may request from the State Board a reduction in monitoring frequency if it has not violated the requirements in this article during the past twelve months. The minimum reduced frequency shall not be less than one sample per quarter.
 - (3) The minimum number of samples for transient-non-community water systems using groundwater and serving 1000 or fewer persons a month shall be one in each calendar quarter during which the system provides water to the public.
 - (4) The minimum number of samples for transient-non-community water systems using groundwater and serving more than 1000 persons during any month shall be based on the known population served as shown in Table 64423-A, except that the water supplier may request from the State Board a reduction in monitoring for any month the system serves 1000 persons or fewer. The minimum reduced frequency shall not be less than one sample in each calendar quarter during which the system provides water to the public.
 - (5) The minimum number of samples for transient-non-community water systems using approved surface water shall be based on the population served as shown in Table 64423-A. A system using groundwater under the direct influence of surface water shall begin monitoring at this frequency by the end of the sixth month after the State Board has designated the source to be approved surface water.
 - (6) A public water system shall collect samples at regular time intervals throughout the month, except that a system using groundwater which serves 4,900 persons or fewer may collect all required samples on a single day if they are taken from different sites.
- (b) In addition to the minimum sampling requirements, all water suppliers using approved surface water which do not practice treatment in compliance with Sections 64650 through 64666, shall collect a minimum of one sample before or at the first service connection each day during which the turbidity level of the water delivered to the system exceeds 1 NTU. The sample shall be collected within 24 hours of the exceedance and shall be analyzed for total coliforms. If the water supplier is unable to collect and/or analyze the sample within the 24-hour time period because of extenuating circumstances beyond its control, the supplier shall notify the State Board within the 24-hour time period and may request an extension. Sample results shall be included in determining compliance with the MCL for total coliforms in Section 64426.1.
- (c) If any routine, repeat, or replacement sample is total coliform-positive, then the water supplier shall collect repeat samples in accordance with Section 64424 and comply with the reporting requirements specified in Sections 64426 and 64426.1.

Table 64423-A
Minimum Number of Routine Total Coliform Samples

Monthly Population Served	Service Connections	Minimum Number of Samples
25 to 1000	15 to 400	1 per month
1,001 to 2,500	401 to 890	2 per month
2,501 to 3,300	891 to 1,180	3 per month
3,301 to 4,100	1,181 to 1,460	4 per month
4,101 to 4,900	1,461 to 1,750	5 per month
4,901 to 5,800	1,751 to 2,100	6 per month
5,801 to 6,700	2,101 to 2,400	7 per month
6,701 to 7,600	2,401 to 2,700	2 per week
7,601 to 12,900	2,701 to 4,600	3 per week
12,901 to 17,200	4,601 to 6,100	4 per week
17,201 to 21,500	6,101 to 7,700	5 per week
21,501 to 25,000	7,701 to 8,900	6 per week
25,001 to 33,000	8,901 to 11,800	8 per week
33,001 to 41,000	11,801 to 14,600	10 per week
41,001 to 50,000	14,601 to 17,900	12 per week
50,001 to 59,000	17,901 to 21,100	15 per week
59,001 to 70,000	21,101 to 25,000	18 per week
70,001 to 83,000	25,001 to 29,600	20 per week
83,001 to 96,000	29,601 to 34,300	23 per week

96,001 to 130,000	34,301 to 46,400	25 per week
130,001 to 220,000	46,401 to 78,600	30 per week
220,001 to 320,000	78,601 to 114,300	38 per week
320,001 to 450,000	114,301 to 160,700	50 per week
450,001 to 600,000	160,701 to 214,300	55 per week
600,001 to 780,000	214,301 to 278,600	60 per week
780,001 to 970,000	278,601 to 346,400	70 per week
970,001 to 1,230,000	346,401 to 439,300	75 per week
1,230,001 to 1,520,000	439,301 to 542,900	85 per week
1,520,001 to 1,850,000	542,901 to 660,700	90 per week
1,850,001 to 2,270,000	660,701 to 810,700	98 per week
2,270,001 to 3,020,000	810,701 to 1,078,600	105 per week
3,020,001 to 3,960,000	1,078,601 to 1,414,300	110 per week
3,960,001 or more	1,414,301 or more	120 per week

Section 64423.1 (Sample Analysis and Reporting of Results) states:

(a) The water supplier shall designate (label) each sample as routine, repeat, replacement, or "other" pursuant to Section 64421(b), and have each sample analyzed for total coliforms. The supplier also shall require the laboratory to analyze the same sample for fecal coliforms or *Escherichia coli* (*E. coli*) whenever the presence of total coliforms is indicated. As a minimum, the analytical results shall be reported in terms of the presence or absence of total or fecal coliforms, or *E. coli* in the sample, whichever is appropriate.

(b) The water supplier shall require the laboratory to notify the supplier within 24 hours, whenever the presence of total coliforms, fecal coliforms or *E. coli* is demonstrated in a sample or a sample is invalidated due to interference problems, pursuant to Section 64425(b), and shall ensure that a contact person is available to receive these analytical results 24-hours a day. The water supplier shall also require the laboratory to immediately notify the State Board of any positive bacteriological results if the laboratory cannot make direct contact with the designated contact person within 24 hours.

(c) Analytical results of all required samples collected for a system in a calendar month shall be reported to the State Board not later than the tenth day of the following month, as follows:

(1) The water supplier shall submit a monthly summary of the bacteriological monitoring results to the State Board.

(2) For systems serving fewer than 10,000 service connections or 33,000 persons, the water supplier shall require the laboratory to submit copies of all required bacteriological monitoring results directly to the State Board.

(3) For systems serving more than 10,000 service connections, or 33,000 persons, the water supplier shall require the laboratory to submit copies of bacteriological monitoring results for all positive routine samples and all repeat samples directly to the State Board.

(d) Laboratory reports shall be retained by the water supplier for a period of at least five years and shall be made available to the State Board upon request.

Section 64424 (Repeat Sampling) states in relevant part:

(a) If a routine sample is total coliform-positive, the water supplier shall collect a repeat sample set as described in paragraph (1) within 24 hours of being notified of the positive result. The repeat samples shall all be collected within the same 24 hour time period. A single service connection system may request that the State Board allow the collection of the repeat sample set over a four-day period.

(1) For a water supplier that normally collects more than one routine sample a month, a repeat sample set shall be at least three samples for each total coliform-positive sample. For a water supplier that normally collects one or fewer samples per month, a repeat sample set shall be at least four samples for each total coliform-positive sample.

(2) If the water supplier is unable to collect the samples within the 24-hour time period specified in subsection (a) or deliver the samples to the laboratory within 24 hours after collection because of circumstances beyond its control, the water supplier shall notify the State Board within 24 hours. The State Board will then determine how much time the supplier will have to collect the repeat samples.

(b) When collecting the repeat sample set, the water supplier shall collect at least one repeat sample from the sampling tap where the original total coliform-positive sample was taken. Other repeat samples shall be collected within five service connections upstream or downstream of the original site. At least one sample shall be from upstream and one from downstream unless there is no upstream and/or downstream service connection.

(c) If one or more samples in the repeat sample set is total coliform-positive, the water supplier shall collect and have analyzed an additional set of repeat samples as specified in subsections (a) and (b). The supplier shall repeat this process until either no coliforms are detected in one complete repeat sample set or the supplier determines that the MCL for total coliforms specified in Section 64426.1 has been exceeded and notifies the State Board.

(d) If a public water system for which fewer than five routine samples/month are collected has one or more total coliform-positive samples, the water supplier shall collect at least five routine samples the following month. If the supplier stops supplying water during the month after the total coliform-positive(s), at least five samples shall be collected during the first month the system resumes operation. A water supplier may request the State Board waive the requirement to collect at least five routine samples the following month, but a waiver will not be granted solely on the basis that all repeat samples are total coliform-negative. To request a waiver, one of the following conditions shall be met:

(1) The State Board conducts a site visit before the end of the next month the system provides water to the public to determine whether additional monitoring and/or corrective action is necessary to protect public health.

(2) The State Board determines why the sample was total coliform-positive and establishes that the system has corrected the problem or will correct the problem before the end of the next month the system serves water to the public. If a waiver is granted, a system

shall collect at least one routine sample before the end of the next month it serves water to the public and use it to determine compliance with Section 64426.1.

Section 64425 (Sample Invalidation) states:

(a) A water supplier may request the Department to invalidate a sample for which a total coliform-positive result has been reported if the supplier demonstrates:

- (1) All repeat sample(s) collected at the same tap as the original total coliform-positive sample also are total coliform-positive and all repeat samples collected within five service connections of the original tap are not total coliform-positive; or
- (2) The laboratory did not follow the prescribed analytical methods pursuant to §64415(a), based on a review of laboratory documentation by the Department. The supplier shall submit to the Department a written request for invalidation along with the laboratory documentation, the supplier's sample collection records and any observations noted during sample collection and delivery. The water supplier shall require the laboratory to provide the supplier with documentation which shall include, but not be limited to:
 - (A) A letter from the director of the laboratory having generated the data, confirming the invalidation request by reason of laboratory accident or error;
 - (B) Complete sample identification, laboratory sample log number (if used), date and time of collection, date and time of receipt by the laboratory, date and time of analysis for the sample(s) in question;
 - (C) Complete description of the accident or error alleged to have invalidated the result(s);
 - (D) Copies of all analytical, operating, and quality assurance records pertaining to the incident in question; and
 - (E) Any observations noted by laboratory personnel when receiving and analyzing the sample(s) in question.

(b) Whenever any total coliform sample result indicative of the absence of total coliforms has been declared invalid by the laboratory due to interference problems as specified at 40 Code Federal Regulations, Section 141.2100(c)(2), the supplier shall collect a replacement sample from the same location as the original sample within 24 hours of being notified of the interference problem, and have it analyzed for the presence of total coliforms. The supplier shall continue to re-sample at the original site within 24 hours and have the samples analyzed until a valid result is obtained.

Section 64426 (Significant Rise in Bacterial Count) states in relevant part:

(a) Any of the following criteria shall indicate a possible significant rise in bacterial count:

- (1) A system collecting at least 40 samples per month has a total coliform-positive routine sample followed by two total coliform-positive repeat samples in the repeat sample set;
- (2) A system has a sample which is positive for fecal coliform or *E. coli*; or
- (3) A system fails the total coliform Maximum Contaminant Level (MCL) as defined in Section 64426.1.

(b) When the coliform levels specified in subsection (a) are reached or exceeded, the water supplier shall:

- (1) Contact the State Board by the end of the day on which the system is notified of the test result or the system determines that it has exceeded the MCL, unless the notification or determination occurs after the State Board office is closed, in which case the supplier shall notify the State Board within 24 hours; and
- (2) Submit to the State Board information on the current status of physical works and operating procedures which may have caused the elevated bacteriological findings, or any information on community illness suspected of being waterborne. This shall include, but not be limited to:
 - (A) Current operating procedures that are or could potentially be related to the increase in bacterial count;
 - (B) Any interruptions in the treatment process;
 - (C) System pressure loss to less than 5 psi;
 - (D) Vandalism and/or unauthorized access to facilities;
 - (E) Physical evidence indicating bacteriological contamination of facilities;
 - (F) Analytical results of any additional samples collected, including source samples;
 - (G) Community illness suspected of being waterborne; and
 - (H) Records of the investigation and any action taken.

Section 64426.1 (Total Coliform Maximum Contaminant Level (MCL)) states in relevant part:

(b) A public water system is in violation of the total coliform MCL when any of the following occurs:

- (1) For a public water system which collects at least 40 samples per month, more than 5.0 percent of the samples collected during any month are total coliform-positive; or
- (2) For a public water system which collects fewer than 40 samples per month, more than one sample collected during any month is total coliform-positive; or
- (3) Any repeat sample is fecal coliform-positive or *E. coli*-positive; or
- (4) Any repeat sample following a fecal coliform-positive or *E. coli*-positive routine sample is total coliform-positive.

(c) If a public water system is not in compliance with paragraphs (b)(1) through (4), during any month in which it supplies water to the public, the water supplier shall notify the State Board by the end of the business day on which this is determined, unless the determination occurs after the State Board office is closed, in which case the supplier shall notify the State Board within 24 hours of the determination. The water supplier shall also notify the consumers served by the water system. A Tier 2 Public Notice shall be given for violations of paragraph (b)(1) or (2), pursuant to section 64463.4. A Tier 1 Public Notice shall be given for violations of paragraph (b)(3) or (4), pursuant to section 64463.1.

Section 64463.1 (Tier 1 Public Notice) states in relevant part:

(a) A water system shall give public notice pursuant to this section and section 64465 if any of the following occurs:

- (1) Violation of the total coliform MCL when:

(A) Fecal coliform or E. coli are present in the distribution system; or

(B) When any repeat sample tests positive for coliform and the water system fails to test for fecal coliforms or E. coli in the repeat sample;...

(b) As soon as possible within 24 hours after learning of any of the violations in subsection (a) or being notified by the State Board that it has determined there is a potential for adverse effects on human health [pursuant to paragraph (a)(4), (5), or (6)], the water system shall:

(1) Give public notice pursuant to this section;

(2) Initiate consultation with the State Board within the same timeframe; and

(3) Comply with any additional public notice requirements that are determined by the consultation to be necessary to protect public health.

(c) A water system shall deliver the public notice in a manner designed to reach residential, transient, and non-transient users of the water system and shall use, as a minimum, one of the following forms:

(1) Radio or television;

(2) Posting in conspicuous locations throughout the area served by the water system;

(3) Hand delivery to persons served by the water system; or

(4) Other method approved by the State Board, based on the method's ability to inform water system users.

Section 64463.4 (Tier 2 Public Notice) states:

(a) A water system shall give public notice pursuant to this section if any of the following occurs:

(1) Any violation of the MCL, MRDL, and treatment technique requirements, except:

(A) Where a Tier 1 public notice is required under section 64463.1; or

(B) Where the State Board determines that a Tier 1 public notice is required, based on potential health impacts and persistence of the violations;

(2) All violations of the monitoring and testing procedure requirements in sections 64421 through 64426.1, article 3 (Primary Standards – Bacteriological Quality), for which the State Board determines that a Tier 2 rather than a Tier 3 public notice is required, based on potential health impacts and persistence of the violations;

(3) Other violations of the monitoring and testing procedure requirements in this chapter, and chapters 15.5, 17 and 17.5, for which the State Board determines that a Tier 2 rather than a Tier 3 public notice is required, based on potential health impacts and persistence of the violations; or

(4) Failure to comply with the terms and conditions of any variance or exemption in place.

(b) A water system shall give the notice as soon as possible within 30 days after it learns of a violation or occurrence specified in subsection (a), except that the water system may request an extension of up to 60 days for providing the notice. This extension would be subject to the State Board's written approval based on the violation or occurrence having been resolved and the State Board's determination that public health and welfare would in no way be adversely affected. In addition, the water system shall:

(1) Maintain posted notices in place for as long as the violation or occurrence continues, but in no case less than seven days;

(2) Repeat the notice every three months as long as the violation or occurrence continues. Subject to the State Board's written approval based on its determination that public health would in no way be adversely affected, the water system may be allowed to notice less frequently but in no case less than once per year. No allowance for reduced frequency of notice shall be given in the case of a total coliform MCL violation or violation of a Chapter 17 treatment technique requirement; and

(3) For turbidity violations pursuant to sections 64652.5(c)(2) and 64653(c), (d) and (f), as applicable, a water system shall consult with the State Board as soon as possible within 24 hours after the water system learns of the violation to determine whether a Tier 1 public notice is required. If consultation does not take place within 24 hours, the water system shall give Tier 1 public notice within 48 hours after learning of the violation.

(c) A water system shall deliver the notice, in a manner designed to reach persons served, within the required time period as follows:

(1) Unless otherwise directed by the State Board in writing based on its assessment of the violation or occurrence and the potential for adverse effects on public health and welfare, community water systems shall give public notice by;

(A) Mail or direct delivery to each customer receiving a bill including those that provide their drinking water to others (e.g., schools or school systems, apartment building owners, or large private employers), and other service connections to which water is delivered by the water system; and

(B) Use of one or more of the following methods to reach persons not likely to be reached by a mailing or direct delivery (renters, university students, nursing home patients, prison inmates, etc.):

1. Publication in a local newspaper;

2. Posting in conspicuous public places served by the water system, or on the Internet; or

3. Delivery to community organizations.

(2) Unless otherwise directed by the State Board in writing based on its assessment of the violation or occurrence and the potential for adverse effects on public health and welfare, non-community water systems shall give the public notice by:

(A) Posting in conspicuous locations throughout the area served by the water system; and

(B) Using one or more of the following methods to reach persons not likely to be reached by a public posting:

1. Publication in a local newspaper or newsletter distributed to customers;

2. E-mail message to employees or students;

3. Posting on the Internet or intranet; or

4. Direct delivery to each customer.

Section 64465 (Public Notice Content and Format) states in relevant part:

(a) Each public notice given pursuant to this article, except Tier 3 public notices for variances and exemptions pursuant to subsection (b), shall contain the following:

- (1) A description of the violation or occurrence, including the contaminant(s) of concern, and (as applicable) the contaminant level(s);
 - (2) The date(s) of the violation or occurrence;
 - (3) Any potential adverse health effects from the violation or occurrence, including the appropriate standard health effects language from appendices 64465-A through G;
 - (4) The population at risk, including subpopulations particularly vulnerable if exposed to the contaminant in drinking water;
 - (5) Whether alternative water supplies should be used;
 - (6) What actions consumers should take, including when they should seek medical help, if known;
 - (7) What the water system is doing to correct the violation or occurrence;
 - (8) When the water system expects to return to compliance or resolve the occurrence;
 - (9) The name, business address, and phone number of the water system owner, operator, or designee of the water system as a source of additional information concerning the public notice;
 - (10) A statement to encourage the public notice recipient to distribute the public notice to other persons served, using the following standard language: —Please share this information with all the other people who drink this water, especially those who may not have received this public notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this public notice in a public place or distributing copies by hand or mail; and
 - (11) For a water system with a monitoring and testing procedure violation, this language shall be included: "We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During [compliance period dates], we ['did not monitor or test' or 'did not complete all monitoring or testing'] for [contaminant(s)], and therefore, cannot be sure of the quality of your drinking water during that time." ...
- (c) A public water system providing notice pursuant to this article shall comply with the following multilingual-related requirements:
- (2) For a Tier 2 or Tier 3 public notice:
 - (A) The notice shall contain information in Spanish regarding the importance of the notice, or contain a telephone number or address where Spanish-speaking residents may contact the public water system to obtain a translated copy of the notice or assistance in Spanish; and
 - (B) When a non-English speaking group other than Spanish-speaking exceeds 1,000 residents or 10 percent of the residents served by the public water system, the notice shall include:
 1. Information in the appropriate language(s) regarding the importance of the notice; or
 2. A telephone number or address where such residents may contact the public water system to obtain a translated copy of the notice or assistance in the appropriate language; and
 - (3) For a public water system subject to the Dymally-Alatorre Bilingual Services Act, Chapter 17.5, Division 7, of the Government Code (commencing with section 7290), meeting the requirements of this Article may not ensure compliance with the Dymally-Alatorre Bilingual Services Act.
- (d) Each public notice given pursuant to this article shall:
- (1) Be displayed such that it catches people's attention when printed or posted and be formatted in such a way that the message in the public notice can be understood at the eighth-grade level;
 - (2) Not contain technical language beyond an eighth-grade level or print smaller than 12 point; and
 - (3) Not contain language that minimizes or contradicts the information being given in the public notice.

Appendix 64465-A. Health Effects Language - Microbiological Contaminants.

Contaminant	Health Effects Language
Total Coliform	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.
Fecal coliform/E. coli	Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.
Turbidity	Turbidity has no health effects. However, high levels of turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Section 64469 (Reporting Requirements) states in relevant part:

- (d) Within 10 days of giving initial or repeat public notice pursuant to Article 18 of this Chapter, except for notice given under section 64463.7(d), each water system shall submit a certification to the State Board that it has done so, along with a representative copy of each type of public notice given.

Section 64481 (Content of the Consumer Confidence Report) states in relevant part:

- (g) For the year covered by the report, the Consumer Confidence Report shall note any violations of paragraphs (1) through (7) and give related information, including any potential adverse health effects, and the steps the system has taken to correct the violation.
- (1) Monitoring and reporting of compliance data.

**APPENDIX 2. LEVEL 2 ASSESSMENT FINDINGS LETTER DATED
AUGUST 28, 2017 FOR CITATION NO. 03_19_17C_048**



EDMUND G. BROWN JR.
GOVERNOR



MARILYN RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL EDUCATION

State Water Resources Control Board
Division of Drinking Water

August 28, 2017

Robert Cook, Owner
Sierra Meadows
5004 Maynard St.
San Diego, CA 93560

FIELD INSPECTION/LEVEL 2 ASSESSMENT OF SIERRA MEADOWS WATER SUPPLY SYSTEM TO INVESTIGATE BACTERIOLOGICAL CONTAMINATION, WATER SYSTEM NO. 1502564

Dear Mr. Cook:

The Division of Drinking Water, State Water Resources Control Board (hereinafter State Board) regulates the domestic water supply system (Water System) of the Sierra Meadows Mobile Home Park. On July 25, 2017, AbdelRahman Shurbaji (Ph.D., P.E.), an engineer with the State Board and Dita Amtey, Environmental Scientist conducted an inspection of the facilities making up the Water System with your help. The inspection was conducted to complete an investigation (Level 2 Assessment) of the cause of the June 2017 bacteriological contamination in the distribution system. The investigation is required, per the federal revised Total Coliform Rule (rTCR), to identify a possible cause of the coliform contamination, and any needed corrective actions as discussed in this letter and detailed in the completed form titled "Revised Total Coliform Rule - Level 2 Assessment" (Enclosure 1). Pictures taken during the inspection are provided under Enclosure 2. Enclosure 2 also includes some pictures from the May 12, 2016, sanitary survey of the Water System.

The Level 2 Assessment was triggered by a second total coliform technique triggered violation in June 2017, following the total coliform treatment technique trigger in December 2016. During the month of June 2017, one (1) routine sample, collected on June 20, 2017, tested **positive** for total coliform bacteria and negative for *E.coli* bacteria. After flushing the distribution system, three (3) repeat samples were collected on June 23, 2017, from the distribution system and all three samples, also tested **positive** for total coliform bacteria. A fourth repeat sample collected on June 23, 2017, from the Well 01, tested negative for total coliform bacteria. To further investigate the total coliform positive samples and identify cause of contamination, one (1) sample from the 10,000-gallon storage tank was collected on June 28, 2017 (before providing emergency disinfection), and it tested **positive** for total coliform bacteria. After providing emergency disinfection and flushing of the storage tank and distribution system, five (5) samples were collected on June 29, 2017, from the distribution system, and all five samples tested negative for total coliform bacteria.

PELUCIA MARCUS, CHAIR | THOMAS HOWARD, EXECUTIVE DIRECTOR

4025 Commerce Drive, Suite 120, Bakersfield, CA 93309 | www.waterboards.ca.gov

An exact cause of the contamination has not been identified though there are several factors pertaining to the construction and surface features of Well 01 and operation of the Water System, which may have contributed to the bacteriological contamination in June 2017. Based on the information received from Dan Sackett, the Water System's contract sampler and a certified distribution operator, it was reported that there was a sprinkler line leak in close proximity to the routine and repeat sample sites that tested positive for total coliform bacteria in June 2017. However, the State Board does not necessarily considers this leak to be the primary source of bacteriological contamination in the distribution system, in June 2017.

We note that a sample collected on June 28, 2017, from the storage tank tested positive for total coliform bacteria and the contamination in the distribution system may have originated from the storage tank. We have learned that with the current piping arrangement, the water from Well 01 may be directly feeding into the distribution system at times, via the three pressure tanks, instead of the water first going thru the storage tank, and then into the distribution system. Due to this practice, water in the storage tank may be stagnant. The Water System will need to modify operation to ensure that all water from the well is pumped directly into the storage tank, and then supplied to the distribution system via booster pump and three pressure tanks. Enclosure 3 shows the current and modified system schematic of the Water System.

Surface construction features of Well 01 do not comply with the California Waterworks Standards. The wellhead is flush with the ground and there is no concrete pad. Also, the wellhead is not sealed to the surface. In addition, there is no casing vent provided for the well. The deficiencies related to the surface features of Well 01 were identified under Item No. 8 of the December 2012 sanitary survey letter dated January 3, 2013. The same deficiencies were identified in the 2016 sanitary survey of the Water System and discussed in the State Board's letter dated October 13, 2016. It has been over five years since the State Board identified this deficiency. The Water System needs to fix this deficiency within 90 days. Enclosure 4 to this letter shows standard surface features of a domestic water supply well.

Based on the July 25, 2017 field inspection, and our observation of some defects at the wellhead, review of the bacteriological sampling results, and review of the Water System's operation, below you will find our major recommendations.

1. It is unknown if Well 01 has a 50-foot annular sanitary seal. Within 30 days, please provide a copy of the well completion report of Well 01 to verify the status of annular sanitary seal. Inadequate annular sanitary seal or missing sanitary seal may cause total coliform positive samples in the well.
2. The Water System operation should be modified so that water from Well 01 pumps directly into the storage tank before going to the pressure tanks and then the distribution system. This modification will assist in preventing stagnant water from entering the distribution system. Enclosure 3 shows the current and modified piping at the tank site to complete this task. This work should be completed within 60 days.
3. Well 01 needs to be provided with standard surface features of a domestic water supply well, including a 4-inch high concrete pad, casing vent, proper sealing of the pump base to the concrete pad, etc. Please review Enclosure 4 and provide surface features of Well 01 accordingly within 90 days.

Please submit a written response to the State Board within 30 days and the items identified above should be addressed within the specified timeframe.

We appreciate the assistance provided during the inspection and completion of Level 2 assessment. If you have any questions regarding this letter, please contact our office at (661) 335-7315 or via email at DWPDIST19@waterboards.ca.gov.

Sincerely,



Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer
Division of Drinking Water

Enclosures:

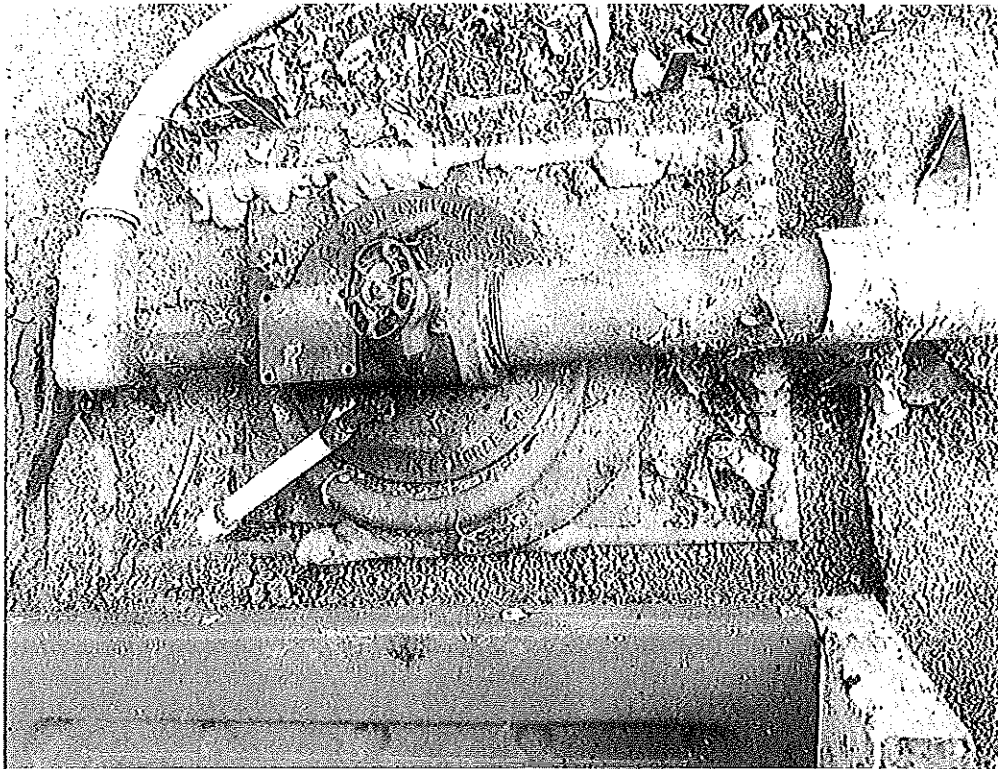
- Enclosure 1: Pictures Taken on May 12, 2016 and July 25, 2017
- Enclosure 2: Level 2 Assessment Form
- Enclosure 3: System Schematic – Current and Modified
- Enclosure 4: Standard Surface Features of a Domestic Water Supply Well

Kern County Department of Public Health, Environmental Health Division (w/o enclosures)
Dan Sackett , skOO'kum h2o monitoring, inc., Contract Sampler (via email)

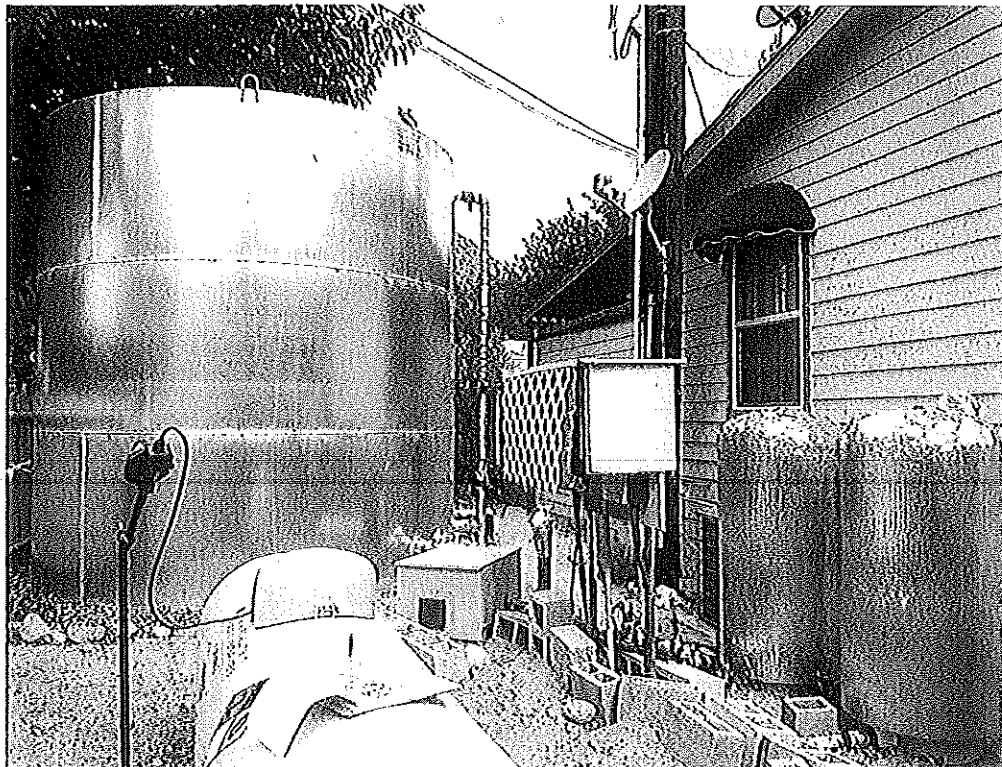
Enclosure 1

Pictures Taken on May 12, 2016 and July 25, 2017

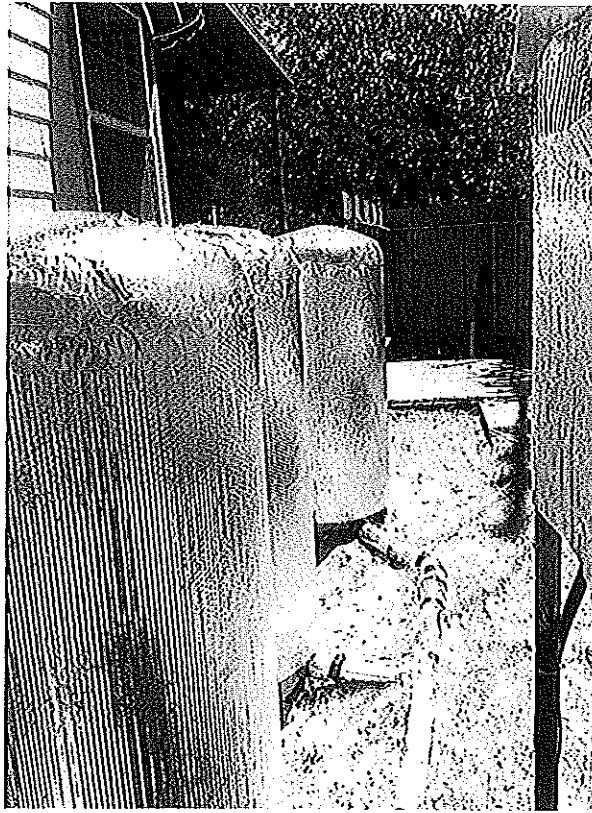
Sierra Meadows Water System, Water System No. 1502564
Pictures Taken on May 12, 2016 and July 25, 2017 by AR Shurbaji and N. Amtey



Well 01 – Wellhead is flush with the ground, with no concrete pad & missing surface features



Sierra Meadows Water System well site area with 10,000-gallon storage tank



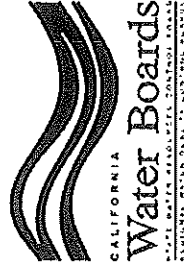
Three pressure tanks. Pressure Tank #1 (shown on the left side) needs to be connected to the distribution system in the same manner as the other two tanks, shown with the piping.

Enclosure 2

Level 2 Assessment Form

REVISED TOTAL COLIFORM RULE (RTCR) – LEVEL 2 ASSESSMENT

This form is intended to assist Division of Drinking Water (DDW) or Local Primacy Agency (LPA) Staff in completing the investigation required by the federal revised Total Coliform Rule (rTCR) [effective April 1, 2016]. If the answer has a large box around it, it is an issue and needs to be described by LPA or DDW in the next column. Please include the question number in the description. The PWS must address each issue described in the Corrective Action column. To avoid a violation, the water system must submit to DDW/LPA a completed assessment report no later than 30 days after the trigger date.



PWS ID#:1502564 PWS Name: Sierra Meadows Park Circle one: ☒ CWS / ☐ NTNC / ☐ TNC

Operator in Responsible Charge (print name): Dan Sackett, D2/T2 Phone: 661-557-5242

Assessment trigger date: June 20, 2017 Date Assessment Completed: July 25, 2017

SEASONAL: YES ☐ NO ☒ Reason for Assessment: Second coliform MCL in 12 months (December 2016 and June 2017)

Person who collected TC positive samples: Shon Sackett Contact info for person who collected samples: 760-382-2070

Name of Certified Lab conducting sample analysis: BC Laboratories

Assessment Elements		Y	N	N/A	Issue Description	Corrective Action Taken or Planned to be Taken and Date
1.	Review of the sample sites	Y	N	N/A	Indicate Element number being described.	Indicate Element number being described.
1.1	Was the sample taken at the routine coliform site? List the name(s) of the positive sample site(s).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.1. One routine sample taken on June 20, 2017 tested positive for total coliform from Space #5. Collected 4 repeat samples on June 23 and three samples tested total coliform positive. The fourth site, Well 01, did not test positive for total coliform.	The operators completed emergency chlorination on 6/24 and did the needed flushing after finding about the total coliform positive samples.
1.2	Was the tap area unsanitary at the time of sampling?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
1.3	Was this sample taken from an outside faucet?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
1.4	Was the sample taken from a swivel tap?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	One special sample taken from the tank on 6/28 tested positive for total coliform bacteria. Special samples were collected on 6/29 from five sites, all five samples tested negative for total coliform bacteria.	
1.5	Did the tap have a point of use treatment device on it?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
1.6	Does the building where the sample was taken have a point of entry device?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
1.7	Has this location undergone any plumbing replacements or repairs?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1.10. See 1.1 above.	
1.8	Are there any possible cross connections around the sample site (including yard hydrants and stock tanks)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
1.9	Is this location near a storage tank or dead end?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
1.10	Have there been any analytical results or any additional samples collected, including source samples, which were positive (not for compliance)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
1.11	Prior to this incident, when was the most recent satisfactory coliform samples taken? Date:	5/09/2017				
1.12	Any other sample site issues not previously mentioned?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

REVISED TOTAL COLIFORM RULE (RTCR) – LEVEL 2 ASSESSMENT

2.	Review of sample protocol	Y	N	N/A	Indicate Element number being described.	Indicate Element number being described.
2.1	Was the positive sample(s) taken by the operator in responsible charge? Provide name of sampler.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2.1. Shon Sackett, D2/T2 certified operator with skOO'kum h2o monitoring, inc.	
2.2	Is the sampler a regular, trained sampler?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
2.3	Was a laboratory-provided TC sample bottle used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
2.4	Was the aerator removed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
2.5	Was the water tap flushed for at least 5 minutes?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
2.6	Was the tap disinfected or flamed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
2.7	Did the sample get too warm prior to being placed on ice?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
2.8	Were there other sampler errors? Describe	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
2.9	If it is a seasonal system, were there any problems during the most recent start-up procedure?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
2.10	Any other sample protocol issues not previously mentioned (e.g. vandalism or unauthorized access)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
3.	Review of the distribution system.	Y	N	N/A	Indicate Element number being described.	Indicate Element number being described.
3.1	Have any mains or service lines recently been repaired, replaced or installed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
3.2	Have fire hydrants or blow offs been recently flushed/used/sheared?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
3.3	Have valves been recently exercised to direct flow?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
3.4	Any leaks or main breaks noted?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
3.5	Are all of the backflow prevention devices operational and maintained?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
3.6	Was there a total loss of pressure, low pressure (<20 psi) or changes in water pressure? If yes, when?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
3.7	Any areas of the distribution with low disinfectant levels (<0.2 mg/L)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
3.8	Any recent pump station failures or repairs?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
3.9	Air relief valve leaking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
3.10	Standing water or debris in (air relief) valve vault?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
3.11	Any recent power loss?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
3.12	Any unprotected cross connections (including yard hydrants and stock tanks)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
3.13	Has high turbidity been detected in the distribution system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
3.14	Is there evidence of intentional contamination or vandalism?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

REVISED TOTAL COLIFORM RULE (RTCR) – LEVEL 2 ASSESSMENT

3.15	Any other distribution issue not previously mentioned (e.g. other O&M activities that could have introduced coliforms)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
4.	Review of storage tank(s) (Note the specific facility if any issues are found)	Y	N	N/A		Indicate Element number being described.	
4.1	Is there a presence of animals or insects in the tank(s)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		4.5 Tank is less than 5 years old.	
4.2	Are there breaches or holes of any sort into tank(s)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
4.3	Is there any presence of animal droppings around openings, vents or overflows?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		4.6. Check screens for damage and replace as necessary.	
4.4	Is there sediment buildup and floating debris in tank(s)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
4.5	Have the tank(s) been cleaned within the last 5 years? If not, list when it was last cleaned.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
4.6	Are the vents and overflows protected against entry from animals, insects or other contaminants?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
4.7	Are the screens damaged or not properly installed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
4.8	Does the reservoir have a common inlet/outlet?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
4.9	Is the overflow pipe directly connected to a tank drain, sanitary sewer or storm drain?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
4.10	Does the hatch have a solid, water proof, shoebox type lid that is properly sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
4.11	Was the hatch locked or secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
4.12	Has the tank been accidentally drained?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
4.13	Have there been high flows through the tank?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
4.14	Was there high water age in the tank (infrequent water use)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
4.15	Was the sample taken when the tank was at the low level mark?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
4.16	Failure or improper operation on tank telemetry/altitude valves/controls?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
4.17	Any recent repairs on the tank(s)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
4.18	Was there any power loss?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
4.19	Is the site secured (e.g. fencing, locked gates, etc.)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
4.20	Was the tank vandalized or subject to tampering?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
4.21	Any other storage tank issues not previously mentioned above?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
	Pressure Tanks (if applicable)	Y	N	N/A		Indicate Element number being described.	
4.22	What is the volume of the pressure tank? Attach additional sheets if needed.	Unknown					
4.23	What is the age of the pressure tank? Attach additional sheets if needed.	Unknown					
4.24	Does the pressure tank use a bladder and/or air compressor? Attach additional sheets if needed.	Bladder					

REVISED TOTAL COLIFORM RULE (RTCR) – LEVEL 2 ASSESSMENT

4.25	Did the pressure tank(s) deviate from normal operating pressure?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
4.26	Is the compressor pump running more than normal?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
4.27	Is the tank bladder water logged?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
4.28	Is the tank damaged, rusty, leaking or have holes?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
4.29	Was there any recent work performed on the tank?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
4.30	Is the air relief vent (if there one) screened and facing down?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
4.31	Can the inside of the pressure tank be visually inspected through an inspection port? If so, when was it last inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
5.	Review of treatment process (if applicable)	Y	N	N/A	Indicate Element number being described.	Indicate Element number being described.
5.1	Has the treatment been bypassed altogether at any time or have individual processes been interrupted by power outages or other causes? If yes, provide details on when, which processes and for how long?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
5.2	Have there been any new treatment processes added or new equipment installed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
5.3	Have there been any recent repairs of major unit processes or treatment equipment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
5.4	Have there been any changes in the operational procedures used for treating the water such as, changes in chemical dosages, flow changes, or changes in coagulant chemicals used? If yes, provide details of the change and when it occurred.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
5.5	Has a coagulant been added at all times the plant has been filtering water?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
5.6	Have there been changes in raw water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
5.7	Was the settled water turbidity increasing?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
5.8	Was the finished water turbidity increasing?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
5.9	Have filter clogging algae caused more frequent backwashing?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
5.10	Have there been any failures in adding disinfectant for any length of time?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
5.11	Was water delivered that did not meet CT requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
5.12	What is the entry point chlorine residual today? Free/Total? N/A	—	mg/L			
5.13	Has there been any vandalism or tampering at the plant?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
5.14	Any other treatment plant issues not previously mentioned above?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

REVISED TOTAL COLIFORM RULE (RTCR) – LEVEL 2 ASSESSMENT

Sources – Well(s) (Note the specific facility if any issues are found)		Y	N	N/A	Indicate Element number being described.	Indicate Element number being described.
6.1	Is there a 50 foot annular seal?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6.1. The well penetrates hard rock stratum to 60 ft.	
6.2	Is the surface seal defective or damaged or not water tight?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The well driller's report is not on file and it is not clear if it has an annular seal. The well is about 500 ft from Kern River when it reaches the high level. This well may be influenced by heavy rainfall events.	
6.3	Is there a casing vent?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6.3. The sounding tube is currently detached from its base and is providing an opening which may contribute to the contamination of source water.	
6.4	Does the casing and/or air relief vent have a screen to prevent the entry of insects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
6.5	Does the vent and pump to waste terminate in an air gap of at least three pipe diameters above the ground?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
6.6	How is the well used? (Circle if applicable)	Primary			Backup	Emergency
6.7	Are there any unprotected cross connections at the wellhead?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6.8. Fissures on the well casing may contribute to the contamination of source water and need to be sealed.	
6.8	Are there any unprotected openings in the pump or pump assembly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
6.9	Is the pitless adapter damaged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
6.10	Are there any exposed holes or cracks near the wellhead? For example electric conduit.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
6.11	Has there been any recent work performed on the pump?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
6.12	Is the wellhead secured to prevent unauthorized access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
6.13	Have there been any sewer spills, source water spills or other disturbances near the well?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
6.14	Is the wellhead at least 18-inches above grade?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
6.15	Is there evidence of standing water near the wellhead?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
6.16	Is the well pit in standing water or evidence of flooding?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
6.17	Any other well issues not previously mentioned above?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Sources- Spring(s) (Note the specific facility if any issues are found)		Y	N	N/A		
6.18	Is there evidence of flooding or infiltration of surface water runoff around the spring?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
6.19	Is the spring box improperly developed or poorly maintained?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
6.20	Is the spring site secured (e.g. locks, fence, gate, etc).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
6.21	Are there dead animals near the spring?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
6.22	Any other issues about springs not previously mentioned above?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Sources – Surface Water		Y	N	N/A		
6.23	Have there been algae blooms?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

REVISED TOTAL COLIFORM RULE (RTCR) – LEVEL 2 ASSESSMENT

6.24	Has the source water turned over?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6.25	Have there been any sewer spills, source water spills or other disturbances?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6.26	Any other source water issues not previously mentioned above?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Sources-purchased water		N/A			
6.27	Water quality issues with supplier?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6.28	Low disinfectant residual from supplier (typically ≤ 0.2 mg/L)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6.29	Any other purchased water issues not previously mentioned above?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Applicable to all sources					
6.30	Has an unapproved source been used?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6.31	Has there been a change in sources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6.32	Has there been recent rapid snowmelt, heavy rainfall or flooding?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6.33	Any evidence of animals near the source?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6.34	Have there been changes in available source water (e.g. significant drop in water table, reservoir capacity)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6.35	Is the source water sample for ground water systems E. coli positive? This may indicate that the positive sample is originating from the source and may be a continuous source of contamination.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6.36	Any other source issues not previously mentioned above?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
7.	General Operations	Indicate Element number being described.			Indicate Element number being described.
7.1	During or soon after bacteriological quality problems, did you receive any complaints of any customers' illness suspected of being waterborne? How many?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
7.2	What were the symptoms of illness if you received complaints about customers being sick?	N/A			
7.3	Were there any extreme weather/natural events (e.g. heat, freezing, raining, windy, fires, earthquakes etc)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8.	Significant Deficiencies	Indicate Element number being described.			Indicate Element number being described.
8.1	Are there any unaddressed significant deficiencies? This may indicate that the problem is known and is in the process of being remedied. Include approved corrective action date and status of each corrective action.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8.1. Any significant deficiencies will be addressed in a letter sent to the Water System along with this form.

1. Attach additional sheets if needed.

REVISED TOTAL COLIFORM RULE (RTCR) – LEVEL 2 ASSESSMENT

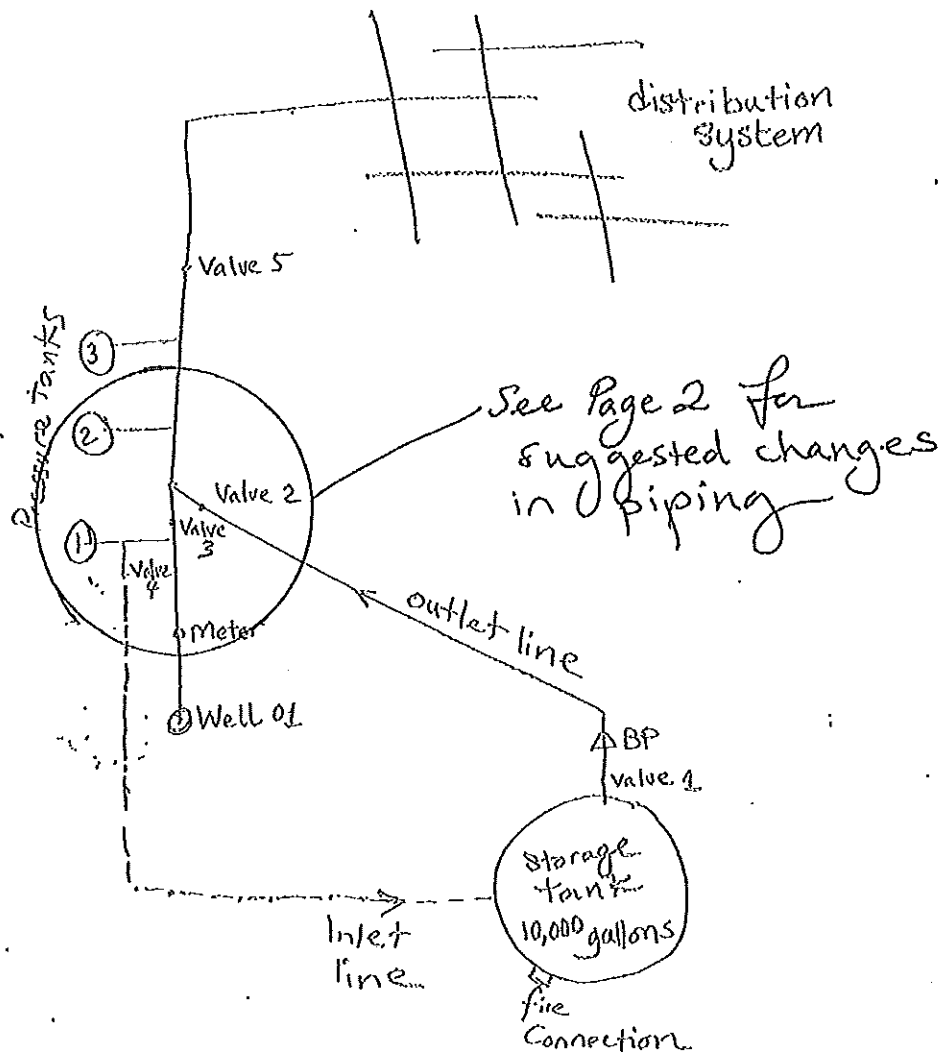
Additional Comments:	
Name of SWRCB Division of Drinking Water or LPA representative completing the form (PRINTED): Dita Amtey, Environmental Scientist and AbdelRahman M Shurbaji, Ph.D., P.E. Signature: <i>[Signature]</i> Date: 7/25/2017	
Water system responsible party (PRINTED): Signature: <i>[Signature]</i> Date:	

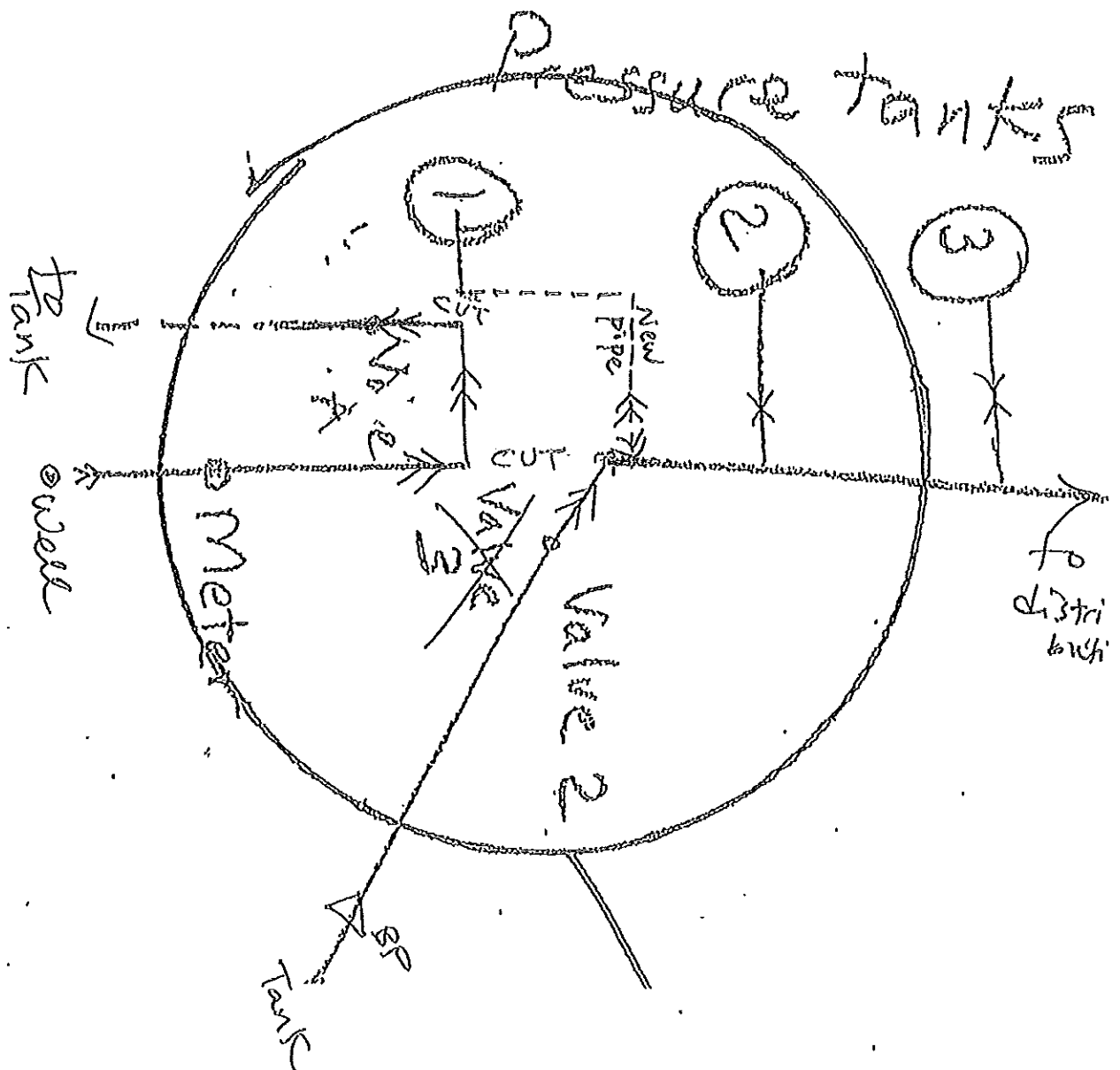
Reserved for Regulatory Agency (DDW / LPA) Review			
	Yes	No	Comments
1. Has assessment been successfully completed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Likely reason for EC+ occurrence has been found.	<input type="checkbox"/>	<input type="checkbox"/>	
3. System has corrected the problem.	<input type="checkbox"/>	<input type="checkbox"/>	
4. Were all issues identified corrected?	<input type="checkbox"/>	<input type="checkbox"/>	
4. Corrective Action Approved?	<input type="checkbox"/>	<input type="checkbox"/>	

Enclosure 3

System Schematic – Current and Modified

Sierra Meadows Park Water System # 1502564





CHANGES:

- * Remove valve 3 and valve 4
- * Cut pipes as shown "cut"

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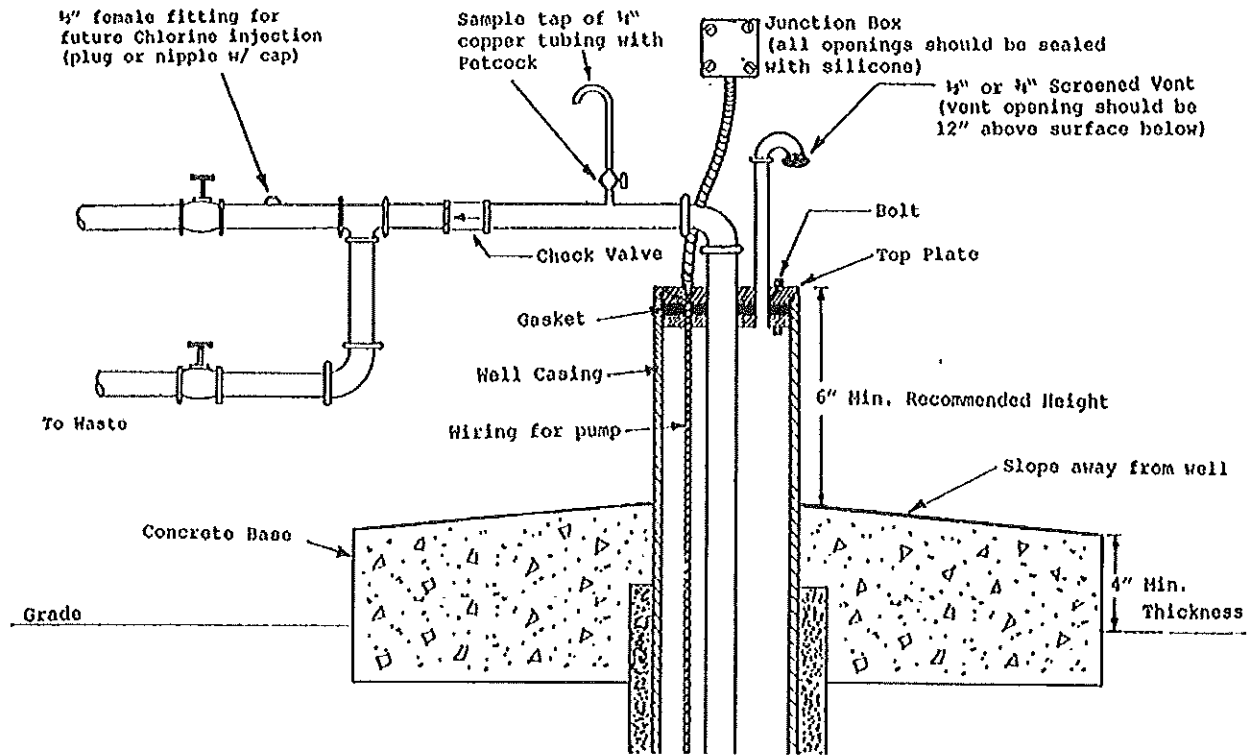
* Add new pipe to connect PT 1

A.M. SHORRARI
Aug 3, 2017

Enclosure 4

Standard Surface Construction Features of a Domestic Supply Well

Submersible Pump Installation



APPENDIX 3. SUMMARY OF BACTERIOLOGICAL RESULTS
(January 2016 – October 2017) FOR
CITATION NO. 03_19_17C_048

Sierra Meadows

1502564

Distribution System Freq: 1/M

Sample Date	Time	Location	T Coli	E Coli	F Coli	Type	Cl2	Violation	Comment
1/13/2016	15:49	3ROU	A	A		Routine			
2/10/2016	14:44	System	A	A		Routine			
3/2/2016	11:11	System	A	A		Routine			
4/6/2016	12:39	4ROU	A	A		Routine			
5/11/2016	13:22	5ROU	P	A		Routine			
5/16/2016	15:30	1REP1	A	A		Repeat			
5/16/2016	15:45	1REP2	A	A		Repeat			
5/16/2016	16:10	1REP3	A	A		Repeat			
6/9/2016	13:19	3ROU	A	A		Routine			
6/9/2016	13:24	2ROU	A	A		Routine			
6/9/2016	13:29	5ROU	A	A		Routine			
6/9/2016	13:32	4ROU	A	A		Routine			
6/9/2016	13:39	1ROU	A	A		Routine			
7/6/2016	16:47	2ROU	A	A		Routine			
8/10/2016	10:42	3ROU	A	A		Routine			
9/28/2016	12:06	4ROU	A	A		Routine			
10/19/2016	15:13	5ROU	A	A		Routine			
11/9/2016	14:02	1ROU	A	A		Routine			
12/6/2016	13:57	2ROU	P	A		Routine		MCL	Cit. 03_19_17C_048 issued.
12/9/2016	8:40	2REP1	A	A		Repeat			
12/9/2016	9:00	2ROU	A	A		Repeat			
12/9/2016	9:15	2REP2	A	A		Repeat			
12/9/2016	9:20	STORAGE TANK	A	A		Other			
1/11/2017	11:47	1ROU	A	A		Routine			
1/11/2017	11:53	2ROU	A	A		Routine			
1/11/2017	12:04	3ROU	A	A		Routine			
1/11/2017	12:16	4ROU	A	A		Routine			
1/11/2017	12:31	5ROU	A	A		Routine			
2/1/2017	16:25	2ROU	A	A		Routine			
3/15/2017	15:09	3ROU	A	A		Routine			
4/25/2017	12:21	4ROU	A	A		Routine			
5/9/2017	13:53	5ROU	A	A		Routine			
6/20/2017	14:19	1ROU	P	A		Routine			
6/23/2017	9:05	1ROU	P	A		Repeat		MCL	Cit. #03_19_17C_048 issued.
6/23/2017	9:08	1REP1	P	A		Repeat			

<i>Sample Date</i>	<i>Time</i>	<i>Location</i>	<i>T Coli</i>	<i>E Coli</i>	<i>F Coli</i>	<i>Type</i>	<i>Cl2</i>	<i>Violation</i>	<i>Comment</i>
6/23/2017	9:14	1REP2	P	A		Repeat			
6/28/2017	12:00	STORAGE TANK	P	A		Other			
6/29/2017	16:21	1ROU	A	A		Other			
6/29/2017	16:26	4ROU	A	A		Other			
6/29/2017	16:32	2ROU	A	A		Other			
6/29/2017	16:36	5ROU	A	A		Other			
6/29/2017	16:42	3ROU	A	A		Other			
7/25/2017	15:15	3ROU	A	A		Routine			
7/25/2017	15:24	2ROU	A	A		Routine			
7/25/2017	15:30	5ROU	A	A		Routine			
7/25/2017	15:35	4ROU	A	A		Routine			
7/25/2017	15:42	1ROU	A	A		Routine			
8/8/2017	16:42	3ROU	A	A		Routine			
8/11/2017	8:52	3REP2	A	A		Repeat			
8/11/2017	8:58	3ROU	A	A		Repeat			
8/11/2017	9:07	3REP1	A	A		Repeat			
9/5/2017	15:21	1ROU	A	A		Routine			
9/5/2017	15:28	2ROU	A	A		Routine			
9/5/2017	15:37	3ROU	A	A		Routine			
9/5/2017	15:43	5ROU	A	A		Routine			
9/5/2017	15:52	4ROU	A	A		Routine			
10/3/2017	12:47	5ROU	A	A		Routine			

Sierra Meadows

1502564

Source Monitoring Freq:

<i>Sample Date</i>	<i>Time</i>	<i>Source</i>	<i>T Coli</i>	<i>E Coli</i>	<i>F Coli</i>	<i>Violation</i>	<i>Comment</i>
12/9/2016	9:39	WELL 01	P	A			GWR/Repeat-MPN 11
12/12/2016	15:01	WELL 01	A	A			
6/23/2017	9:19	WELL 01	A	A			GWR/Repeat
8/11/2017	8:41	WELL 01	<1	<1			
8/11/2017	8:45	STORAGE TANK	A	A			
